



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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ATLANTA, GEORGIA 300303-8960

June 29, 2005

Mr. Richard Toennisson
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, TN 37902

**SUBJ: EPA NEPA Comments on the TVA DEIS for the “Watts Bar Reservoir
Land Management Plan”; Loudon, Meigs, Rhea and Roane Counties, TN;
CEQ No. 20050197**

Dear Mr. Toennisson:

Consistent with Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the referenced Draft Environmental Impact Statement (DEIS) concerning the Tennessee Valley Authority’s (TVA) proposed land management plan for the Watts Bar Reservoir. This proposed management plan updates the current plan initiated in 1988.

We offer the following comments, as well as the enclosed *Additional Comments*, for TVA’s consideration in the development of its Final EIS (FEIS):

Background & Alternatives

TVA is updating its land management plan for Watts Bar Reservoir “...to reflect changing, community needs and current TVA policies” (pg. S-1). Overall, some 16,000 acres of TVA public lands would be considered under the new management plan. The updated plan includes some 6,000 (5,972) acres of new lands such as shoreline strips, TVA operation areas and lands committed under legal agreements that were not part of the 1988 plan. Land parcels were allocated into seven new “zones” to form two alternatives – one that balances development with recreation (B) and one that balances conservation with recreation (C) – for comparison against the existing 1988 plan (A). The seven allocation zones are:

- + Zone 1 - Non-TVA Shoreland
- + Zone 2 - Project Operations
- + Zone 3 - Sensitive Resource Management
- + Zone 4 - Natural Resource Conservation
- + Zone 5 - Economic Development
- + Zone 6 - Developed Recreation
- + Zone 7 - Shoreline Access

Alternative B emphasizes Zone 5 as well as 6, while Alternative C emphasizes Zone 4 as well as 3. TVA will also apply an Integrated Resource Management (IRM) approach for Zones 2, 3, 4 and 6, to manage for multiple resources rather than for only one resource. IRM would focus on natural, recreation, cultural and visual resources.

The Watts Bar Reservoir area is a rapidly developing area. Since 1990, the growth rate of the four counties of the area (Loudon, Meigs, Rhea and Roane) is 17.7% (2000 data), which is faster than the state or national average. The principal towns in the area are Spring City, Kingston, Loudon, Lenoir City, Oak Ridge and Harriman. Current development adjacent to the reservoir lands entails 17,000 acres of private platted lands, which is about 1,000 more acres than the subject public lands under the proposed management plan. At this time, only some 50% of these private lands have been developed, so that additional private land development and its impacts can be expected regardless of the alternative selected for the management plan.

Alternative C retains the majority of the public reservoir lands and allocates them for conservation in Zone 4 (5,288 ac or 32%) and Zone 3 (3,465 or 22%). It also allocates lands for recreation in Zone 6 (1,415 ac or 8%) but on an informal basis (less developed and low-impact recreation), and allocates only insignificant amounts of lands to economic development in Zone 5 (52 ac or 1%). In contrast, Alternative B allocates considerably more lands to Zone 5 (2,278 ac or 14%) which would be sold for various private development (including “mixed use” development, i.e., including commercial and light industrial sites), and to Zone 6 (1,476 ac or 9%) which would be retained as public lands but developed for recreation. The type of economic development allowed and if any parcels of lands would be re-allocated to other zones would depend on the kinds of requests made to TVA and the ultimate decisions made by the TVA Board of Directors (TVA Board).

Overall, the allocation for sensitive areas (Zones 3 & 4) are 8,753 acres for Alternative C, which decreases to 6,467 acres for Alternative B and 6,764 for Alternative A (Table 2.2-2). As such, the focus of the EIS appears to be on the loss or maintenance of public lands – should a portion of the TVA public lands be sold for private development or otherwise be developed for public recreation, or should the majority be retained for conservation and informal recreation?

In regard to the present development of the reservoir lands, 340 of the 721 miles of shoreline (47%) have been developed. The public lands subject to the management plan consist of various plant and animal communities that include pristine as well as cluttered areas; rare and state- or federally-protected biota (bald eagle, Indiana bat) and other species of interest (blue heron, mussels); shorelands and islands; designated ecological sites (Managed Areas or Significant Ecological Sites); forebay, embayment and riverine areas; contiguous woodlands, wetlands and farmlands (including prime farmlands); archaeological sites; and other natural areas. These attractive reservoir features plus 39,000 acres of impounded surface waters have resulted in some 1.9 million recreation user days per year, with 48,848 boats and personal watercraft being registered with residents living within 25 miles of the reservoir (pg. S-6).

EPA Conclusions & Recommendations

In general, EPA supports the updating of the 1988 Watts Bar Reservoir Management Plan. Although TVA did not identify a preferred alternative in the DEIS (*Note: EPA continues to prefer that a federal lead agency selects a preferred alternative in the DEIS*), EPA favors the TVA selection of the conservation/recreation alternative (C) over the development/recreation alternative (B) and the No Action alternative (A). Alternative C appears to be the environmentally preferred alternative. In most cases, we believe that existing public lands should be retained as a public resource for conservation, recreation and light development (e.g., controlled silviculture in selected areas such as less-sensitive and low-impact sites). Maintaining the Watts Bar Reservoir public lands also seems consistent with TVA's original intent to buffer the reservoir from the effects of development, while the sale and economic development of a sizable (14%) portion of these lands would seem counterproductive to this goal. Also, while we respect TVA's mandate and judgement to promote economic development in the Tennessee Valley, we offer that the positive economics associated with the vast amount of cargo shipped through the Valley, including the three locks and dam at Watts Bar (over 1.4 million tons of commercial cargo in 2003: pg. S-6), might be considered sufficient.

We note that the current (2004) health of the reservoir, despite reservoir lands being retained and managed as public lands, still received only an overall *fair* rating (and had been rated *poor* as recent as 2002). Evidence of chlordane, PCB and arsenic contamination exists in sediments. Benthic assemblages are generally considered poor (with some notable exceptions) and fish consumption warnings exist for certain areas (although fish ratings and diversity appear good). Accordingly, the area seems in need of further restoration (both inside and outside the watershed) as opposed to further development. It should also be noted that regardless of the management approach selected by TVA (conservation or development), about half of the platted 17,000 private acres that are being developed adjacent to the public reservoir lands have not yet been developed. As such, additional cumulative impacts to all resources (water, land, air) can be expected to further stress the area regardless of the reservoir management plan selected. The potential economic development of public lands would extend the developmental impacts of the area rather than allowing the conserved public lands to help mitigate and buffer the impacts of the ongoing private development.

From a terrestrial perspective, the development of the Watts Bar public lands under Alternative B would apparently focus on the areas for the former Clinch River Breeder Reactor Site (1,223 ac) and the Lowe's Branch site (1,182 ac). The eventual development of 3,700 acres (pg. S-8) in these areas and others can be expected, which would fragment high quality terrestrial habitat. Page S-8 states that Alternative B "...would have the greatest positive impacts for economic development but negative impacts to terrestrial ecology." Conversely, Alternative C would conserve these contiguous areas that are important as wildlife mobility corridors and forage areas as well as to the success of deep forest bird species and overall forest biodiversity. Conservation of large tracts of forested areas should be considered since they are becoming less

common in the Tennessee Valley due to conversion and fragmentation for development and silviculture.

Although EPA prefers Alternative C over B and A, we wish to acknowledge that if Alternative B is selected by TVA in the FEIS and development of some of the public lands occurs, several TVA and other regulatory controls would help mitigate the impacts. For example, we much appreciate the TVA Shoreline Management Policy (SMP) developed in the 1998 Shoreline Management Initiative EIS reviewed by EPA. We also recognize TVA's designation of sensitive sites (e.g., TVA Natural Areas) within the reservoir lands and that these would not be developed, TVA's monitoring programs that rate reservoir health, and the presumed TVA involvement as a stakeholder to a Watts Bar Reservoir watershed management plan. As a federal regulatory agency, we are also aware of and, where appropriate, involved in implementing various federal, state and local environmental laws and regulations that minimize wetland loss, soil erosion, and point source and non-point source discharges. Primary to this EIS, we also note that the TVA Board has the opportunity to use its discretion (as suggested on pages 106 & 117) to control the type of development allowed in Zone 5 and if additional parcels are allowed to be re-allocated to Zone 5 from less impacting zones (i.e., grant or deny a variance to the plan). However, despite these noteworthy TVA and other federal, state and local environmental controls, a greater level of direct and cumulative developmental impacts can be expected if public lands are allowed to be developed under Alternative B when compared to Alternative C. While some impacts can be minimized and mitigated through regulations, we believe impact avoidance whenever practical is preferable.

However, should the economic development approach be preferred by TVA, additional consideration should be given to development of a hybrid alternative (D) in the FEIS that blends some economic aspects of Alternative B and some conservation aspects of Alternative C, while retaining most recreational aspects of both B and C. Such a hybrid alternative would be less polarized between conservation and development interests. It would temper the economic development impacts of B and reduce the level of conservation of C to provide some balance among conservation, development and recreation. Although EPA still prefers selection of Alternative C, such a hybridized approach would be preferable over selection of Alternative B since less developmental impacts would result.

Because TVA did not select a preferred alternative, EPA has rated both of the presented action alternatives. As the environmentally preferred alternative that retains public lands for conservation, we rate Alternative C as "LO" (Lack of Objections). We rate Alternative B as "EC-1" (Environmental Concerns with some additional information requested) since it allows the sale of public lands (14%) for private development. If a hybrid alternative (D) that results in less public land being developed is selected in the FEIS, we would prefer it over Alternative B but would still prefer Alternative C overall.

Summary

EPA prefers Alternative C over B and A since it appears to be the environmentally preferred alternative. Alternative B would allow the sale and private development of 14% of the public lands surrounding the Watts Bar Reservoir and also otherwise develop 9% of the

public lands into developed recreation areas. These land allocations would be incorporated into the designated zones of the updated reservoir management plan for the next 10 years. In contrast, Alternative C would retain the majority of the existing public lands, allocate 32% to conservation, minimize economic development to 1%, and still allow informal recreation. Given the extent of the ongoing private development of 17,000 acres adjacent to the reservoir lands, additionally developing the public lands surrounding the reservoir would cumulatively extend the developmental impacts of the area rather than allowing the conserved public lands to help mitigate and buffer the impacts of the ongoing private development. The decision to sell or retain public lands is an important one since the conversion of natural resources for development is generally irreversible.

If the economic development approach is nevertheless preferred by TVA, additional consideration should be given to developing a hybrid alternative (D) in the FEIS that blends some economic aspects of Alternative B and some conservation aspects of Alternative C, while retaining most recreational aspects of both B and C. Such a hybrid alternative would be preferable over selection of Alternative B since less developmental impacts would result. If Alternative B (or even a hybrid alternative) is selected by TVA, we wish to emphasize that all relevant regulatory controls as well as TVA policies should be applied to ensure that the implementation of the economic development of public lands be regulated and monitored. The latter would include application of the TVA's SMP, IRM, reservoir health monitoring, watershed partnerships, and of primary importance in this case, the TVA Board's discretion to control the type of development allowed in Zone 5 and its granting or denial of any variances to re-allocate parcels into Zone 5 from lesser impact zones. We suggest that the TVA Board be selective in granting requests for development and/or variances and that set criteria for such allowances be established as part of the plan.

EPA appreciates the opportunity to review the DEIS. Should you have questions, Chris Hoberg (404/562-9619) of my staff will serve as the initial point of contact.

Sincerely,

/S/

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosure - *Additional Comments*

ADDITIONAL COMMENTS

We offer the following additional comments on the DEIS for TVA's consideration:

► Air Quality - Page S-7 indicates that the counties around the reservoir are in nonattainment for ozone and fine particulates. How will equipment emissions and fugitive dust from ongoing construction of private lands adjacent to the reservoir public lands and the potential construction of the public reservoir lands (Alt. B) be consistent with such nonattainment status?

► NEPA - Several TVA Environmental Assessments (EAs) were listed on page 7. EPA did not receive copies of these documents for our discretionary review. In the future, we request that a copy of those EAs that TVA believes are pertinent for our review input be provided to us with a 30-day review period.

► Developmental Impacts - Because the EIS generically discusses a new plan for which development requests (Alt. B) have not been formally made to the TVA Board, the impacts of such requests are understandably difficult to assess at this time. Even more difficult are resultant cumulative impacts. Although the DEIS does provide some reasonable impact information (e.g., pg.112), we suggest that the FEIS provide a few summaries predicting the impacts of some typical developments (housing, mixed use and developed recreation) that can be expected under Alternative B. Additional cumulative impact information should also be added to the extent possible.

► IRM - Similar to providing the above summaries for developmental impacts, an example or two in the FEIS as to how IRM would be applied would also be useful to its understanding by the public. Such examples would supplement the good conceptual description of IRM on page 122.

► Buffer Zone - Page 113 indicates that the TVA IRM Plan would establish a 50-450 ft streamside management buffer zone. It is unclear when a 50 ft versus a 450 ft buffer would apply and why such a wide range is indicated. The FEIS should discuss this.

► Watershed Management Plan - The FEIS should discuss TVA's presumed partnership with other vicinity stakeholders to develop a Watts Bar Reservoir Watershed Management Plan. If this is not the case, what future involvement is planned, particularly given the ongoing development of the 17,000 acres of private land adjacent to the reservoir public lands that could influence reservoir water quality?

► Plan Term - Page 116 indicates that the reservoir plan would have a 10-year horizon. Reference to this timeframe was not noticed earlier in the document. Earlier inclusion should be considered in the FEIS text and executive summary.

► Environmental Justice (EJ) - Page S-6 states that "[m]inorities account for 4.9 percent of the population which is well below the Tennessee state average of 20.8 percent." If entrance fees or other costs are associated with recreational activities under Zone 6 (Developed Recreation) emphasized in Alternative B, minorities and low-income populations may be slightly disadvantaged. However, this would seem to be minor given the low percentage of minorities and the fact that opportunities for informal recreation would still remain even if

Alternative B was selected.

- Noise - Relative to Alternative C, it is clear that the sale and development of public lands under Alternative B would cause more direct noise impacts during the construction and “operation” of housing and mixed use sites. Cumulative noise impacts would also be generated within the public land sites (2,278 ac) if they were developed, as well as together with the ongoing private development (1,700 ac) adjacent to the reservoir lands.